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EXAMINER

PARTON, KEVIN S

ART UNIT	PAPER NUMBER
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2153

DATE MAILED: 05/27/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/589,449

Applicant(s)

AKMAN, ARDA

Examiner

Kevin Parton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 03/17/2003 have been fully considered but they are not persuasive. Please see the following reasons and the associated rejection below.
2. Applicant argues "Claims 1-4 and...does not show the claimed invention" (page 6, paragraph 3, line 1 – page 7, paragraph 1, line 8). The argument is not persuasive for the reasons shown in the initial Office Action and for those stated in the interview. The purpose of the Zhang et al. (USPN 6,381,646) reference (as shown in the original rejection) is to show the common use of NAT in applications for the transfer of packets across a network. Control protocol messages are a specific type of network traffic that is common. The combination is to show that it is obvious to apply this type of network address translation to control protocol messages. The point of the combination is to show that the NAT performed on this specific message type would benefit the system as a whole, thus rendering the claimed invention obvious.
3. The applicant further argues "To paraphrase the interview...rational of record" (page 7, paragraph 1, lines 8-14). The argument is not persuasive because the examiner has satisfied in the original rejection (restated below) all of the requirements for a rejection under 35 U.S.C. 103(a). As stated in the interview, the basis of rejection for this case cannot be reduced to a simple 'x' and 'y' characterization and the validity of the rejection will only be discussed in light of the claimed invention. Please see MPEP 706.02 and the associated sections. The rejection as stated does not require the applicant to create any arguments or "fill in" gaps.

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4. The applicant further argues “The rejection of...rejection of record” (page 7, paragraph 1, lines 14-18). The argument is not persuasive because the motivation for the combination was clearly stated in the original Office Action in paragraph 3. The rejection is restated below.

5. The applicant further argues “Claims 2-4 – rejection of record” (page 7, paragraph 2 – page 8, paragraph 3). The arguments are not persuasive for the same reasons stated above with regards to claims 1-4 and 7-10.

6. The applicant further argues “Claim 5 deserves...rejection of record” (page 8, paragraph 4). The argument is not persuasive because while the examiner did make a typographical error (the figure referenced should have been figure 3) it is clear that the network of Zhang et al. (USPN 6,381,646) would utilize ports as broadly claimed. Network traffic being passed among the devices of the figure would inherently require ports of some type for the input and output of the signals.

7. The applicant further argues “The Patent Office further...for claim 5” (page 8, paragraph 5 – page 9, paragraph 1). The argument is not persuasive because the applicant has incorrectly quoted the Office Action. The original rejection on page 9, lines 10-12 does not actually state anything about where translation takes place. Lines 8-16 on page 9 of the original action should be read as a whole. The examiner notes that the reference shows translation taking place “at a firewall”. The reference is used to show that translation can take place locally to, and in conjunction with a firewall. The Patent Office does not seek to “have it both ways”. The original rejection is clearly stated and renders obvious the claimed invention.

8. The applicant further argues “Claims 11, 13, and 15...rejection of record” (page 9, paragraph 3). The argument is not persuasive because the term “behind the firewall” is unclear.

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Additionally, nothing about the claim clearly states this limitation. As discussed in the interview, without amendment, this claim is not read to specify where the server resides. While it was conceded that the server of the reference is outside the firewall of the reference (in relation to the local machine), nothing about the claim makes the limitation clear. Please note that the server of the reference can return messages to the firewall to be forwarded to a network. Also, the server can receive messages and route them to a node on a network. The server being “behind the firewall” is not a specific limitation of the claim as discussed in the interview. As stated in the interview, the examiner addressed this argument with a primary examiner (Dung Dinh) who agreed that the claims cannot be read to necessarily specify where the server resides.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-4 and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang et al. (USPN 6,381,646) in view of Cave et al. (USPN 6,404,746).

11. Regarding claim 1, Zhang et al. (USPN 6,381,646) teach a system for translating IP addresses within messages, the messages originating and terminating in different IP networks, comprising means for:

a. Receiving a message from a node on a first IP network (column 6, line 42).

Note that the outside user, on an IP network, sends a packet to a destination.

- b. Translating an IP address within the message from the IP address associated with the first IP network to an IP address associated with a second IP network (figure 7; column 6, line 65 – column 7, line 7). Note that in the reference, translation is not always necessary, but depending on the resource sought, the translation may be required.
- c. Routing the message to a node on said second IP network (column 7, lines 3-4). Note that in the reference, when translation is performed, the message is sent on to the translated address.

Although the system disclosed by Zhang et al. (USPN 6,381,646) shows substantial features of the claimed invention, it fails to disclose means wherein the message is a control protocol message.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Zhang et al. (USPN 6,381,646), as evidenced by Cave et al. (USPN 6,404,746).

In an analogous art, Cave et al. (USPN 6,404,746) disclose a system for transmission of messages on a network wherein the messages are control protocol messages (column 21, lines 42-51). Note that in the reference, the standards discussed are control standards and would send control protocol messages.

Given the teaching of Cave et al. (USPN 6,404,746), a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Zhang et al. (USPN 6,381,646) by employing the use of control protocol messages. Control protocols are used in all networks and specifically can benefit the system by allowing for Internet telephony.

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12. Regarding claim 2, Zhang et al. (USPN 6,381,646) teach all the limitations as applied to claim 1. They further teach means wherein the translation is network address translation (NAT) (column 6, line 65 – column 7, line 3). Note that in the reference, NAT is one of the possible schemas for address translation.

13. Regarding claim 3, although the system disclosed by Zhang et al. (USPN 6,381,646) (as applied to claim 1) shows substantial features of the claimed invention, it fails to disclose means wherein the node on the first IP network is a media gateway and the node on the second IP network is a media gateway controller.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Zhang et al. (USPN 6,381,646), as evidenced by Cave et al. (USPN 6,404,746).

In an analogous art, Cave discloses a system with multiple communicating networks wherein the node on a first IP network is a media gateway and the node on a second IP network is a media gateway controller (figure 2). Note that in the reference, gateways and a gatekeeper are used. These can communicate as media gateways and media gateway controllers.

Given the teaching of Cave et al. (USPN 6,404,746), a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Zhang et al. (USPN 6,381,646) by employing the communication of media gateways and media gateway controllers. These are common network nodes that may be available on any two communicating networks. They benefit the system by providing service for multimedia communication including Internet telephony.

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14. Regarding claim 4, although the system disclosed by Zhang et al. (USPN 6,381,646) (as applied to claim 1) shows substantial features of the claimed invention, it fails to disclose means wherein the control protocol is MEGACO.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Zhang et al. (USPN 6,381,646), as evidenced by Cave et al. (USPN 6,404,746).

In an analogous art, Cave et al. (USPN 6,404,746) disclose a system for multiple network communication wherein the control protocol is MEGACO (column 21, lines 42-51). Note that in the reference, MEGACO is one of the possible standards that can be used.

Given the teaching of Cave et al. (USPN 6,404,746), a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Zhang et al. (USPN 6,381,646) by employing the use of MEGACO. MEGACO is an industry standard and can benefit the system by allowing for Internet telephony. In addition, MEGACO uses the same implementation for different network types (i.e. ATM or IP) and thus allows for easier portability.

15. Regarding claims 7 and 9, Zhang et al. (USPN 6,381,646) teach a system for translating IP addresses within messages, the messages originating and terminating in different IP networks, comprising means for:

- a. Receiving a message from a node on a second IP network, the message including an IP address associated with the second IP network. (column 6, line 42). Note that the communication goes in both directions. Messages from the second network may be sent to the outside user.

- b. Translating the IP addresses associated with the second network included within the message to an IP address associated with the first IP network (figure 9; column 6, line 65 – column 7, line 7). Note that in the reference, translation is not always necessary, but depending on the resource sought, the translation may be required.
- c. Routing the message to a node on the first IP network (figure 9; column 7, lines 3-4). Note that in the reference, when translation is performed, the message is sent on to the translated address.

Although the system disclosed by Zhang et al. (USPN 6,381,646) shows substantial features of the claimed invention, it fails to disclose means wherein the message is a control protocol message.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Zhang et al. (USPN 6,381,646), as evidenced by Cave et al. (USPN 6,404,746).

In an analogous art, Cave et al. (USPN 6,404,746) disclose a system for transmission of messages on a network wherein the messages are control protocol messages (column 21, lines 42-51). Note that in the reference, the standards discussed are control standards and would send control protocol messages.

Given the teaching of Cave et al. (USPN 6,404,746), a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Zhang et al. (USPN 6,381,646) by employing the use of control protocol messages. Control protocols are used in all networks and specifically can benefit the system by allowing for Internet telephony.

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16. Regarding claims 8 and 10, although the system disclosed by Zhang et al. (USPN 6,381,646) (as applied to claim 7) shows substantial features of the claimed invention, it fails to disclose means wherein the control protocol is MEGACO.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Zhang et al. (USPN 6,381,646), as evidenced by Cave et al. (USPN 6,404,746).

In an analogous art, Cave et al. (USPN 6,404,746) disclose a system for multiple network communication wherein the control protocol is MEGACO (column 21, lines 42-51). Note that in the reference, MEGACO is one of the possible standards that can be used.

Given the teaching of Cave et al. (USPN 6,404,746), a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Zhang et al. (USPN 6,381,646) by employing the use of MEGACO. MEGACO is an industry standard and can benefit the system by allowing for Internet telephony. In addition, MEGACO uses the same implementation for different network types (i.e. ATM or IP) and thus allows for easier portability.

17. Claims 5, 6, and 11-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang et al. (USPN 6,381,646) in view of Cave et al. (USPN 6,404,746) and Arrow et al. (USPN 6,154,839).

18. Regarding claim 5, Zhang et al. (USPN 6,381,646) teach a system for translating IP addresses within messages exchanged between a node on a first IP network and a node on a second IP network comprising:

- a. A port having an IP address associated with said first IP network, said port for receiving a message from the first node intended for the second node, said message including an IP address associated with said second IP network (figure 3). Note that a port is inherent to any device receiving and sending network traffic.
- b. A Network Address Translator for translating the IP address associated with said first IP network included within the message to an IP address associated with said second IP network (figure 7; column 6, line 65 – column 7, line 7). Note that in the reference, translation is not always necessary, but depending on the resource sought, the translation may be required.
- c. A routing component for routing the message to the media gateway controller (column 7, lines 3-4). Note that in the reference, when translation is performed, the message is sent on to the translated address.

Although the system disclosed by Zhang et al. (USPN 6,381,646) shows substantial features of the claimed invention, it fails to disclose means wherein:

- a. The messages are control protocol messages.
- b. The first node is a media gateway and the second node is a media gateway controller.
- c. The translation takes place via a firewall.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Zhang et al. (USPN 6,381,646), as evidenced by Cave et al. (USPN 6,404,746) and Arrow et al. (USPN 6,154,839).

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In an analogous art, Cave et al. (USPN 6,404,746) discloses a system for internetwork communication wherein:

- a. The messages are control protocol messages (column 21, lines 42-51). Note that in the reference, the standards discussed are control standards and would send control protocol messages.
- b. The first node is a media gateway and the second node is a media gateway controller (figure 2). Note that in the reference, gateways and a gatekeeper are used. These can communicate as media gateways and media gateway controllers.

Given the teaching of Cave et al. (USPN 6,404,746), a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Zhang et al. (USPN 6,381,646) by employing the use of control protocol messages and media gateway and media gateway controller nodes. This benefits the system by including well-known nodes and message types that are specially suited for media data types.

In an analogous art, Arrow et al. (USPN 6,154,839) disclose a system for internetwork communication wherein translation is implemented via a firewall (figure 8). Note that in the reference the firewall blocks all unwanted traffic and addresses are translated.

Given the teaching of Arrow et al. (USPN 6,154,839), a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Zhang et al. (USPN 6,381,646) by employing the translation of addresses at the firewall. Zhang et al. (USPN 6,381,646) does not specify at what point the translation should be performed, simply that it is

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the connection point to the first network. Since in many cases, this point would be a firewall, it would benefit the system to perform the translation there.

19. Regarding claim 6, although the system disclosed by Zhang et al. (USPN 6,381,646) (as applied to claim 5) shows substantial features of the claimed invention, it fails to disclose means wherein the control protocol is MEGACO.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Zhang et al. (USPN 6,381,646), as evidenced by Cave et al. (USPN 6,404,746).

In an analogous art, Cave et al. (USPN 6,404,746) disclose a system for multiple network communication wherein the control protocol is MEGACO (column 21, lines 42-51). Note that in the reference, MEGACO is one of the possible standards that can be used.

Given the teaching of Cave et al. (USPN 6,404,746), a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Zhang et al. (USPN 6,381,646) by employing the use of MEGACO. MEGACO is an industry standard and can benefit the system by allowing for Internet telephony. In addition, MEGACO uses the same implementation for different network types (i.e. ATM or IP) and thus allows for easier portability.

20. Regarding claims 11, 13, and 15, Zhang et al. (USPN 6,381,646) teach a system for translating IP addresses within messages sent between two IP networks with means for:

- a. Receiving messages on a first IP network (figure 3).

- b. Routing messages to a node on a second IP network (column 7, lines 3-4).

Note that in the reference, when translation is performed, the message is sent on to the translated address.

- c. Translating IP addresses within a message from IP addresses associated with the first network to IP addresses associated with the second network (figure 7; column 6, line 65 – column 7, line 7). Note that in the reference, translation is not always necessary, but depending on the resource sought, the translation may be required.

Although the system disclosed by Zhang et al. (USPN 6,381,646) shows substantial features of the claimed invention, it fails to disclose means wherein:

- a. The messages are control protocol messages.
- b. The system includes a firewall.
- c. Messages are sent to a secondary server for translation.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Zhang et al. (USPN 6,381,646), as evidenced by Cave et al. (USPN 6,404,746) and Arrow et al. (USPN 6,154,839).

In an analogous art, Cave et al. (USPN 6,404,746) discloses a system for internetwork communication wherein:

- a. The messages are control protocol messages (column 21, lines 42-51). Note that in the reference, the standards discussed are control standards and would send control protocol messages.

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Given the teaching of Cave et al. (USPN 6,404,746), a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Zhang et al. (USPN 6,381,646) by employing the use of control protocol messages. This benefits the system by including well-known nodes and message types that are specially suited for media data types.

In an analogous art, Arrow et al. (USPN 6,154,839) disclose a system for internetwork communication wherein:

- a. The system includes a firewall (figure 8). Note that in the reference the firewall blocks all unwanted traffic and addresses are translated.
- b. A secondary server is used (figure 8). Note that in the reference, the address translation unit is shown as being a separate entity.

Given the teaching of Arrow et al. (USPN 6,154,839), a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Zhang et al. (USPN 6,381,646) by employing the translation of addresses via the firewall. Zhang et al. (USPN 6,381,646) does not specify at what point the translation should be performed, simply that it is the connection point to the first network. Since in many cases, this point would be a firewall, it would benefit the system to perform the translation there. In addition, offloading the messages to a secondary server benefits the system by improving firewall throughput and separating functions to allow translation software changes without affecting security.

21. Regarding claims 12, 14, and 16, although the system disclosed by Zhang et al. (USPN 6,381,646) (as applied to claim 11) shows substantial features of the claimed invention, it fails to disclose means wherein the control protocol is MEGACO.

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Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Zhang et al. (USPN 6,381,646), as evidenced by Cave et al. (USPN 6,404,746).

In an analogous art, Cave et al. (USPN 6,404,746) disclose a system for multiple network communication wherein the control protocol is MEGACO (column 21, lines 42-51). Note that in the reference, MEGACO is one of the possible standards that can be used.

Given the teaching of Cave et al. (USPN 6,404,746), a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Zhang et al. (USPN 6,381,646) by employing the use of MEGACO. MEGACO is an industry standard and can benefit the system by allowing for Internet telephony. In addition, MEGACO uses the same implementation for different network types (i.e. ATM or IP) and thus allows for easier portability.

22. Regarding claim 17, Zhang et al. (USPN 6,381,646) teach all the limitations as applied to claim 5. They further teach means wherein the port is adapted to listen for a Service Change message to determine that a new media gateway is becoming available (figure 9). Please note that in the reference, the port listens for packets. A packet could be any type of message and if from a new host, would show that a new media gateway is available.

23. Regarding claim 18, Zhang et al. (USPN 6,381,646) teaches all the limitations as applied to claim 17. They further teach means wherein the network address translator is adapted to place an IP address of the new media gateway in a NAT table of IP addresses (figure 5; figure 10).

Note that NAT addresses are stored in a table in the reference.

Conclusion

24. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Parton whose telephone number is (703)306-0543. The examiner can normally be reached on M-F 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (703)305-4792. The fax phone numbers for the organization where this application or proceeding is assigned are (703)746-9242 for regular communications and (703)746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

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Kevin Parton
Examiner
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ksp
May 19, 2003

A handwritten signature in black ink, appearing to read 'Glenton B. Burgess', with a long horizontal flourish extending to the right.

GLENTON B. BURGESS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100